Teachers' Retirement Board
Investment Committee
Open Session

Subject:	**1998/99 Investment Branch Objectives**	**Item Number:**	**8**
		Attachment(s):	**2**
Action:	**X**	**Date of Meeting:**	**July 8, 1998**
Information:		**Presenters:**	**Mr. Mitchell**

EXECUTIVE SUMMARY

The California State Teachers Retirement System (STRS) has an Investment Management Plan with a general objective to "conduct an annual planning session including an estimate of cash flows and an updated financial projection".

Attachment 1 provides a summary of the eight investment related components in the Investment Branch including:

I. Strategy
II. Historical Overview
III. Current Status
IV. Performance Measurement
V. Key Issues
VI. Implementation Objectives
VII. Staffing Issues

The primary focus of the 1998/99 objectives is the implementation of the investment strategies approved over the past twelve months including the comprehensive plans for domestic equity, international equity, and real estate.

Attachment 2 has the 1998/99 objectives placed on a proposed timeline. The proposed objectives can be modified or rearranged as desired by the Investment Committee. The finalized timeline will be presented at the Investment Committee meeting in August. It is anticipated the a status report will be provided in November, February, and May to document the progress achieved.

Domestic Equity Investments

I. Portfolio Function and Strategy

The primary function of the domestic equity portfolio is to provide a high expected rate of return relative to other assets at a reasonable level of liquidity. The strategy is to invest by diversifying across the Russell 3000 Index securities emphasizing a combination of active and passive management.

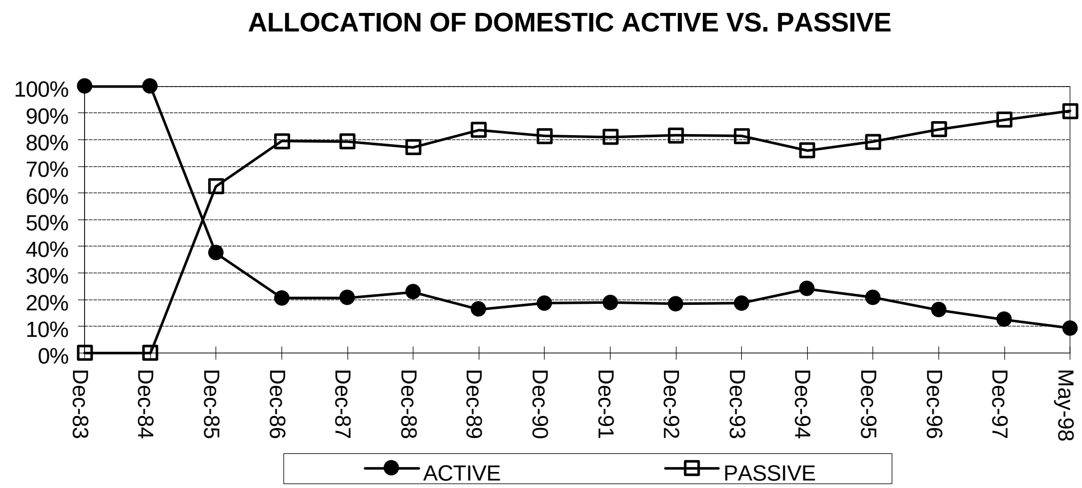
II. Historical Overview

Prior to 1966, the California State Teachers' Retirement System (STRS) was prohibited from owning equity securities. In 1966 Proposition 6 was passed which removed the prohibition but placed a statutory limitation on the maximum percentage of equity which could be held in the investment portfolio. After much debate, the first equity security was purchased in March 1973. By June 1973 STRS had invested approximately 4% of the total investment portfolio (about $115 million) into a small number of "blue chip" companies. STRS equity exposure remained relatively constant varying between 3% and 5% of the total investment portfolio for the next six years with the total market value of the equity exposure growing to approximately $350 million during that time. During 1979 and 1980 there was a change in the asset allocation with the market value of domestic equity portfolio rapidly increasing to 25% of the total investment portfolio.

In 1983, Proposition 21 was implemented which eliminated the statutory limitations on the equity component of the investment portfolio. During 1985 an asset allocation review was completed by the general consultant which recommended an increase in domestic equity securities to 50% of the investment portfolio. In retrospect, that was STRS' highest allocation to domestic equity securities.

Subsequent asset allocation reviews have been approved by the Board about every two years, each with a unique combination of domestic and international equity and fixed income percentages. The desire for increased diversification has gradually reduced the level of allocation to domestic equity securities to the current allocation of 38% with a corresponding increase in the international equity allocation.

From 1973 to 1985, all of the domestic equity was managed in an active style. In implementing the 1985 Investment Management Plan an initial allocation to passive management was completed. Quickly the passive component increased to 60% of the total domestic equity portfolio. Since that time there has been an increasing reliance on passive management. The graph below displays the percentage of STRS' domestic equity allocation managed in active and passive styles.



From 1986 to 1993 the target was 75% passive and 25% active management. In October 1997, the target allocation between the active and passive components was modified to be 80% passive management and 20% active management.

III. Current Status

The estimated market value of domestic equity portfolios was $36 billion which represents 42% of the total investment portfolio on June 30, 1998. There are seven externally managed and one internally managed domestic equity portfolios. Three passive (Barclays Global Investors manages two portfolios and one portfolio is internally managed) and five active managers are listed along with the market value of the assets under management:

Name of Manager	Portfolio Market Value
Brown Capital Management	$ 300 million
Denver Investment Advisors	900 million
NCM Capital	650 million
Oppenheimer Capital	700 million
SASCO Capital	700 million
Total Active Management	$ 3,250 million

STRS S&P 500 Index	$ 1,050 million
Barclays Global Investors S&P Fund	24,700 million
Barclays Global Investors Extended	7,000 million
Total Domestic Equity	$36,000 million

Performance Measurement

The performance benchmark for the aggregate domestic equity portfolio is the Russell 3000 Index. However, each of the managers has an individualized performance benchmark. From 1986 to 1995 the performance benchmark for the domestic equity portfolio was the Wilshire 5000 Index. The following table compares the aggregate active and aggregate passive portfolios to the Russell 2500 Index (Smaller Cap), Russell 3000 Index and the Wilshire 5000 Index over the past three, five, seven and ten year periods ended March 31, 1998.

Active and Passive – Domestic Equity
For the periods ended March 31, 1998

	Three Years	Five Years	Seven Years	Ten Years
Active	24.74	17.61	16.97	16.89
Passive	31.24	20.81	19.19	17.95
Russell 2500	26.50	18.24	18.54	16.79
Wilshire 5000	31.15	21.28	19.28	18.13
Russell 3000	31.57	21.50	19.50	18.46

As the number of active managers has been reduced from fourteen to five over the past three years, there has been an increasing bias towards small and medium capitalization stocks causing active management to substantially under-perform over the past thirty-six month period.

IV. Key Issues

The threshold issue for the domestic equity portfolio was the determination of the target percent for asset allocation which the Investment Committee adopted at 38% of the total investment portfolio.

A second key issue is the future role of active management in the domestic equity portfolio. An increased allocation to active management was identified in October 1997 and scheduled to be implemented in 1998 including the use of enhanced index managers.

A third key issue is the appropriate performance benchmark to be used for the total domestic equity portfolio. The difference between the Wilshire 5000 Index, Russell 3000 Index and S&P 500 Index can substantially affect the total rate of return of the portfolio.

A fourth key issue is the role of internal management for the passively managed domestic equity portfolios. The primary considerations are (1) cost of management, (2) level of control, (3) trading costs, and (4) asset allocation considerations.

V. Implementation Objectives

1. Evaluate the relative success of the internal management of the passively managed domestic equity portfolios considering cost of management, level of control, trading costs and asset allocation considerations.
2. Coordinate the funding, allocation, reallocation, and transition of the domestic equity portfolios controlling transaction costs while implementing the comprehensive plan approved by the Investment Committee in October 1997.
3. Present a report which describes methods to equitize cash in the domestic equity portfolio.
4. Review and revise the policies and procedures for the soft dollar program including domestic equity, non-U.S. equity, and fixed income portfolios.

VI. Staffing Issue

New top-down risk controls, more active equity managers, and additional quantitative evaluation techniques, require one additional position related to the monitoring of external equity managers. If internal management of the cash equitization program is approved one additional person would be required to implement the program. Prior to implementing any new program, a business plan would be submitted to and approved by the Investment Committee documenting resources required and benefits expected. No other staffing issues are anticipated.

Fixed Income Investments

I. Portfolio Function and Strategy

The primary functions of the fixed income investments are to diversify the risk of the portfolio and to provide liquidity and cash flow to the System. The strategy is to invest in domestic fixed income by managing a diversified portfolio using the Salomon Brothers Large Pension Fund Bond Index (LPF Index) as a performance benchmark.

II. Historical Overview

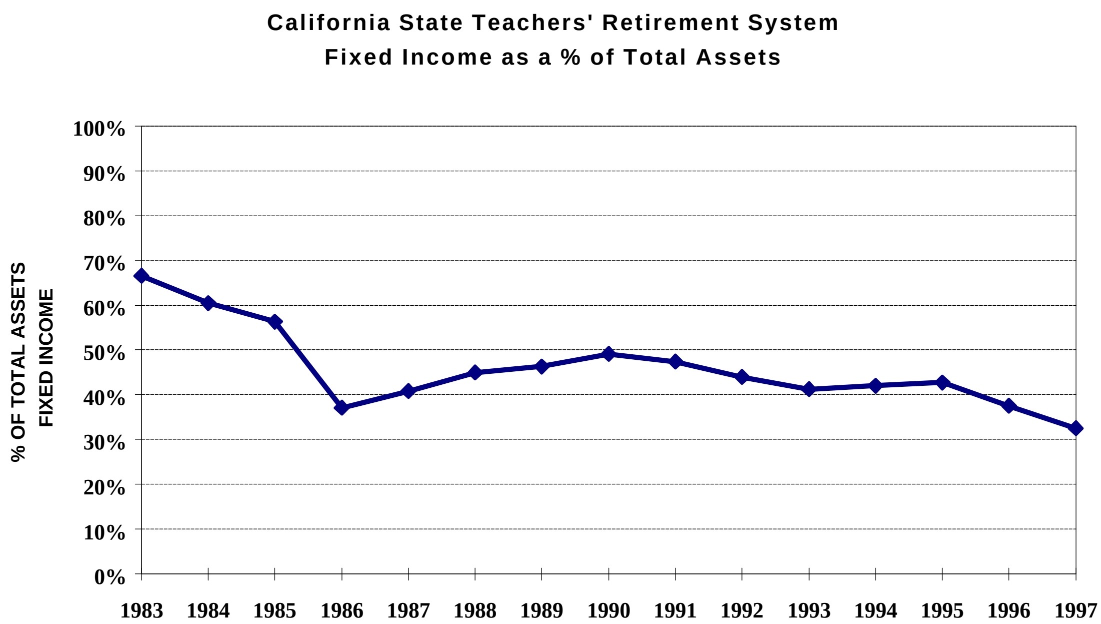
Prior to 1966, the California State Teachers' Retirement System (STRS) invested only in corporate, municipal and U.S. Government fixed income securities. In 1966 Proposition 6 was passed which removed the mandate to purchase only fixed income securities. The first equity security was purchased in 1973. For the next six years fixed income securities comprised approximately 95% of the total investment portfolio. During 1979 and 1980 there was a substantial change in the asset allocation with the market value of domestic fixed income portfolio decreasing to approximately 75% of the total investment portfolio.

In 1983, Proposition 21 was implemented eliminating the statutory limitations on non-fixed income components of the investment portfolio. During 1985 an asset allocation review was completed by the general consultant which recommended a decrease in domestic fixed income securities to between 40% and 50% of the investment portfolio.

Subsequent asset allocation reviews have been approved by the Board about every two years, each with a unique combination of domestic and international equity and fixed income percentages. The desire for increased diversification has gradually reduced the level of the allocation to fixed income securities to the current allocation of 26%.

From inception, until 1986 the domestic fixed income portfolios were managed in an active style by external investment managers. In implementing the 1985 Investment Management Plan an initial allocation to passive management was completed in the Fall of 1986. Within one year all of the active manager contracts had been terminated with the proceeds transferred to the passive portfolio manager. By the fourth quarter of 1988, all of the fixed income assets had been transferred to internal management using an enhanced index management strategy.

The following graph shows domestic fixed income as a percentage of the total investment portfolio.

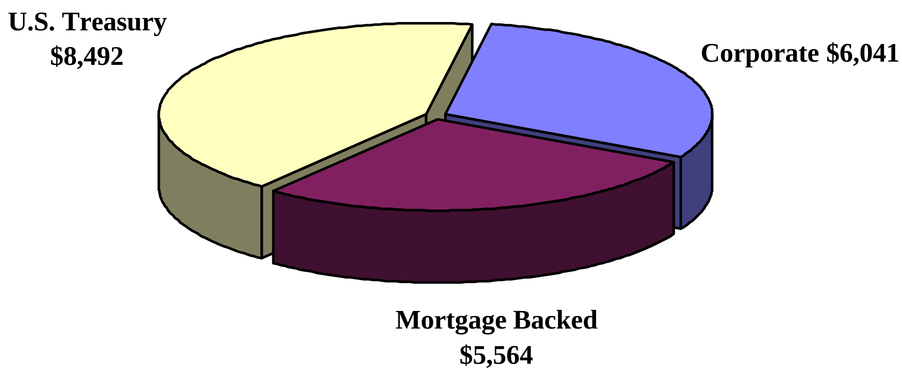


The percentage of domestic fixed income securities has decreased in relation to the total investment portfolio due to a combination of events and strategies. Lower expected returns have resulted from a decade of decreasing interest rates in the United States. Global diversification implies smaller allocations to each specific asset category to reduce volatility and increase the probability of achieving the targeted absolute return objective.

III. Current Status

The estimated market value of domestic fixed income portfolios was $27 billion which represents 31% of the total investment portfolio on June 30, 1998. The fixed income portfolio is comprised of U.S. Treasury, mortgaged backed, and investment grade corporate securities. The following pie chart shows the three indexed segments of the domestic fixed income portfolio as of May 31, 1998. The indexed segments are U.S. Treasury, investment grade corporate, and mortgage backed securities. The assets shown on the pie chart do not include the member home loan portfolio and the remnants of the tactical asset allocation portfolio.

California State Teachers' Retirement System
Fixed Income Allocation
As of May 31, 1998



The $19 billion of U.S. Treasury and U.S. Agency securities represent more than 50% of the total fixed income portfolio. One of the primary methods of gauging risk in a fixed income portfolio is the identification of credit risk as defined by Moodys and Standard and Poors credit rating agencies. The following table breaks down the fixed income portfolio by credit rating with U.S. Government and AAA the highest rating and BBB and BBB- at the lower end of the investment grade credit rating spectrum.

Quality	Percent of STRS F.I. Holdings
U.S. Government	75.24 %
AAA	0.22 %
AA+	0.56 %
AA	1.76 %
AA-	3.76 %
A+	4.99 %
A	5.96 %
A-	2.89 %
BBB+	1.93 %
BBB	1.63 %
below BBB	0.96 %

About 75% of the fixed income holdings are either U.S. Treasury, U.S. Agency or U.S. government guaranteed with a minimal percentage held in the lowest credit categories.

IV. Performance Measurement

The performance benchmark for the fixed income portfolio is the Salomon Brothers Large Pension Fund Index. The Lehman Brothers Government/Corporate Bond Index (Lehman Index) is another frequently used fixed income index and is provided for comparison purposes. The Lehman index has different risk/return characteristics primarily due to a substantial difference in duration. The following table compares the return of the fixed income portfolio compared to the Salomon Brothers Large Pension Fund Index and the Lehman Government/Corporate Index over the past three, five, seven and ten year periods.

Fixed Income versus LPF Index & Lehman Index
For the period ended March 31, 1998

	Three Years	Five Years	Seven Years	Ten Years
STRS Fixed Income	10.99	8.03	9.77	9.99
Salomon LPF Index	10.85	8.05	9.89	10.07
Lehman Index	7.99	6.16	7.69	8.15

The fixed income portfolio is managed on an enhanced indexing basis and has tracked the LPF Index over each of the time periods reviewed with slightly lower risk than the LPF Index.

V. Key Issues

The threshold issue for the domestic fixed income portfolio was the determination of the target percent for asset allocation which the Investment Committee adopted at 26% of the total investment portfolio.

A second key issue is to review the characteristics of an effective performance benchmark and evaluate the validity of the current performance benchmark used within the fixed income area.

A third key issue is the status of the Member Home Loan Program. Over the past few years the volume of new loan activity has decreased substantially. Changes in the existing structure must be implemented to increase viability. The responsibility for this Program will be transferred to the fixed income area.

VI. Implementation Objectives

1. Review the characteristics of an effective performance benchmark and evaluate the validity of the current performance benchmark used within fixed income.
2. Improve the management reports created through the PORTIA portfolio accounting system to assist in the management and monitoring of the internally managed fixed income portfolios.
3. Implement the revitalization of the Member Home Loan Program including selection of additional vendors and coordination of legislative changes to increase loan volume to desired levels.

VII. Staffing Issue

If the Member Home Loan Program regains lending volumes to the desired levels one additional person would be required to direct the program. Prior to implementing any new program, a business plan would be submitted to and approved by the Investment Committee documenting resources required and benefits expected. No other staffing issues are anticipated.

Real Estate Investments

I. Portfolio Function and Strategy

The primary function of real estate investments is to diversify the risk of the total investment portfolio. The approved strategy is to invest in a diversified portfolio of wholly owned properties and selected commingled funds.

II. Historical Overview

In the early 1980s, pension fund investments in real estate were achieved primarily through participation in open-end commingled funds. Open-end funds were designed to permit liquidity (entry to and exit from) on a regular basis, based on the appraised value of the underlying assets. Investors, concerned with potential problems with the entry and exit mechanism turned increasingly towards closed-end funds. The closed-end funds soon developed their own particular set of problems relating to the liquidity and pricing issues. By the mid-1980's most large investors had turned to structured programs for investing directly in properties either on a discretionary or non-discretionary basis. In 1995, it was estimated that one half of the total pension fund real estate investments were through separate account relationships. Over the past few years, the trend has been for increased securitized products such as Real Estate Investment Trusts (REITs) as well as opportunistic funds.

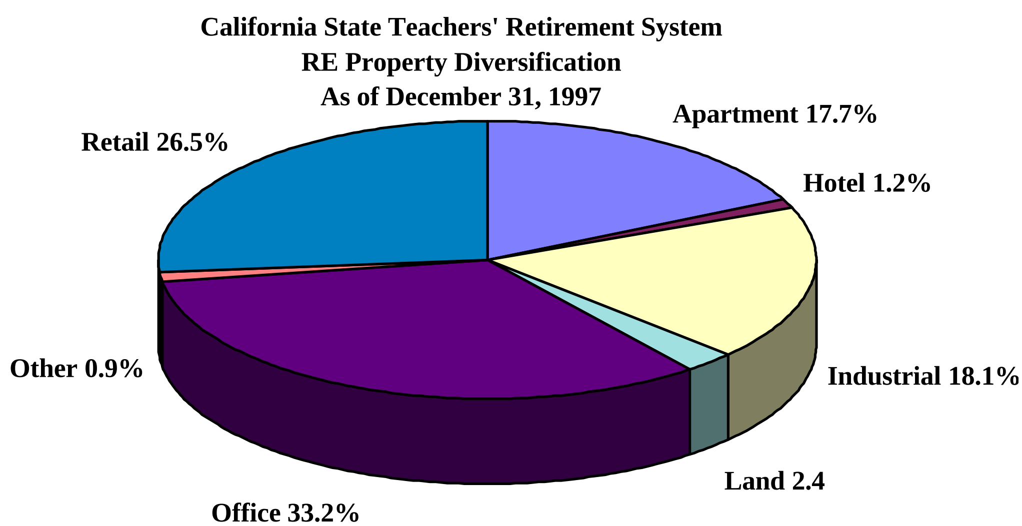
The initial STRS' real estate program, used one advisor without discretion. All types of transactions on specific properties were brought to the Investment Committee. This process was found to be limited, consequently, additional real estate advisors were hired in an attempt to diversify the portfolio holdings and to increase the opportunity to purchase quality properties. A variety of strategies have been considered over the past ten years including targeting "trophy" properties and consolidating all direct properties into a large real estate investment trust (REIT).

III. Current Status

The estimated market value of real estate holdings was $2 billion representing 2% of the total investment portfolio on June 30, 1998. The real estate portfolio is divided into two components: (1) direct ownership, and (2) commingled funds (opportunistic). All properties are managed by external advisors and located throughout the United States. Additionally, there are some international properties contained in the commingled funds (opportunity funds). These opportunistic funds are all categorized below as Special Situations. The following table identifies STRS' four real estate advisors and the estimated June 30, 1998 market value of the portfolios assigned to their management.

Name of Advisor	**Market Value of Portfolio**
ERE Yarmouth	$600 million
SSR Realty Advisors	110 million
MIG Realty Advisors	120 million
Westmark/Trust Company of the West	600 million
Special Situations	570 million
Total Real Estate	$2,000 million

The following chart identifies the property diversification types of the approximate $2 billion real estate portfolio as of December 31, 1997.



Approximately 60% of the STRS' real estate portfolio is invested in office and retail property types, which corresponds to the general pension real estate market (as identified by NCREIF) where about 66% of the real estate is also invested in office and retail. It should be recognized that STRS' real estate portfolio is diversified on a geographic basis as well as property type.

IV. Performance Measurement

The current performance benchmark for the real estate portfolio is the NCREIF Index. For the previous eight years the performance benchmark was the IPC Property Index. The following table compares the return of the real estate portfolio compared to the NCREIF Index over the past one, three, five, and since inception periods.

STRS' Real Estate versus Custom Real Estate Index
December 31, 1987 through December 31, 1997

	One Year	Three Years	Five Years	Since Inception
STRS Real Estate	17.0%	12.5%	3.8%	3.8%
NCREIF Index	13.7%	10.5%	7.8%	6.0%

Because the core real estate portfolio is diversified on a property type and geographic basis, the performance will approximate the broader real estate indexes such as the IPC Index or Russell-NCREIF Index. The opportunity funds have an expected total rate of return similar to the alternative investment partnerships. The rate of return on the real estate portfolio is dependent on the level of credit, liquidity, leverage, and structure risks taken in the real estate portfolio.

V. Key Issues

The threshold issue for the real estate portfolio is the implementation of the comprehensive plan for the appropriate risk and liquidity composition of the real estate portfolio considering the matrix shown on the following page. The chart suggests that real estate investments can be identified on a continuum for return, risk, and liquidity. Traditional, opportunistic, and securitized investments each contain a unique combination that reflects the amount of risk (leverage, credit) and level of liquidity.

A second key issue is the appropriate combination of real estate managers to implement the desired risk composition strategy. The current contracts are scheduled to expire on December 31, 1998.

A third key issue is the "best" method of crafting performance based or incentive fees paid to the real estate managers for acquisition, management, and disposition of properties. Previous performance based or incentive fee arrangements have failed to properly align the interests of STRS and the real estate manager.

VI. Implementation Objectives

1. Present a recommendation to the Investment Committee regarding the appropriateness of performance based or incentive fee paid to the real estate managers for acquisition, management and disposition of properties.

2. Complete a request for proposal for real estate managers as approved by the Investment Committee to implement the overall real estate strategy.
3. Review and revise the implementation strategy for moderate to high risk investments including performance objective, target, range, and investment structures.

VII. Staffing Issue

No staffing issues are anticipated.

Off-Balance Sheet Programs

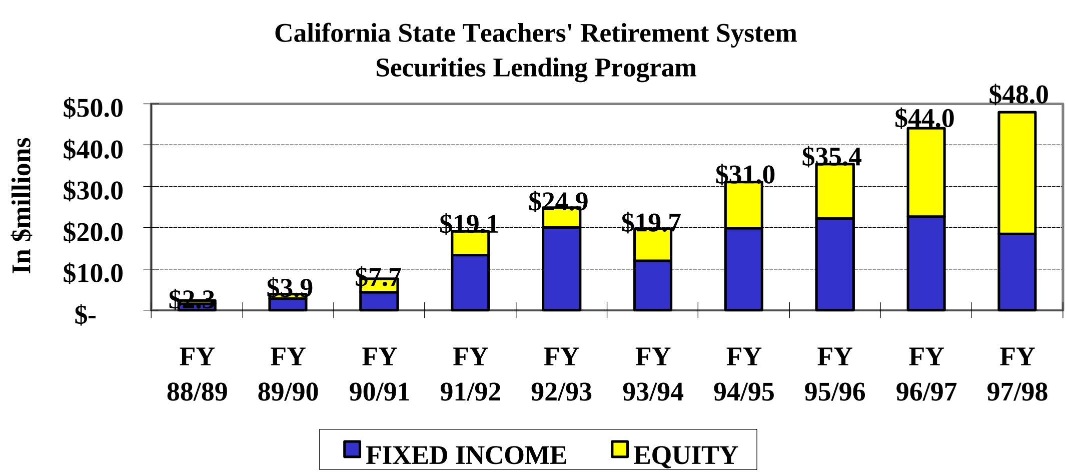
I. Portfolio Function and Strategy

The primary function of off-balance sheet programs is to provide a small incremental increase in the total return to STRS. The strategy is to manage credit enhancement, securities lending, and currency hedging programs in a risk averse manner concentrating on creditworthy counterparties.

II. Historical Overview

Approximately ten years ago, STRS chose to initiate their off-balance sheet programs by implementing prudent risk adverse programs to generate additional income for STRS. The first off-balance sheet program chosen was securities lending which began in 1988. Securities lending is a program designed to be an agreement to transfer the ownership of a security for a predetermined time period for a fee. The lender retains the market price volatility and receives all interest and dividend payments. The fee paid by the borrower is dependent on (1) desirability of the security, (2) length of the borrowing agreement, (3) level of prevailing interest rates, and (4) type of collateral pledged.

The chart below shows the historical levels of income received through the securities lending program. The income amounts in the graph are listed in millions of dollars.



In 1990, the securities lending program was modified from a custody bank lending program to a multi-lender program. This change coincided with a considerable increase in the volume of securities on loan and amount of income received. Since 1994 there has been a substantial increase in international equity securities lending. In January 1997 the Investment Committee approved a proposal to begin internal management of a portion of the securities lending activity. In June 1998 approval was given to expand the nature and size of the internal securities lending program.

The second off-balance sheet component is the credit enhancement program which began in 1993 with the first commitments made in 1994. Credit enhancement is designed to be a substitution of STRS' credit rating for a lower rated public or private entity. This agreement provides that STRS will pay the investor any scheduled interest and/or principal payments in the event the primary obligor does not pay. The credit rating substitution allows the public or private entity to access the capital markets and to pay a lower interest rate to the investors. The fee charged is based on (1) length of the credit commitment, (2) level of prevailing credit enhancement fees, (3) type of enhancement required, and (4) credit worthiness of the obligor.

Since June 1994, STRS has completed more than 50 transactions valued at almost $500 million in outstanding commitments. The income associated with the commitments is approximately $2 million annually.

The third off-balance sheet component to be implemented was the currency hedging program. The first currency hedges associated with the passive portfolio were established in July 1995. Currency hedging is an agreement between a financial institution and STRS to reduce the risk associated with holding non-dollar investments. Approximately 40% of the total rate of return for non-dollar investments is associated with the currency valuation.

Limited amounts of short currency positions are established in approved currencies when there is a high probability that the U.S. dollar may strengthen or when interest rate differentials are compelling.

III. Current Status

The securities lending program has approximately $15 billion of loans outstanding with a 102% average collateralization ratio. For the twelve months ending June 30, 1998 the net income is expected to be more than $48 million.

The credit enhancement program has more than 65 transactions which represent almost $500 million of industrial development bonds, financial institution guarantees and liquidity agreements.

The currency hedging program for the non-dollar investments had the following hedging statistics as of May 31, 1998. The hedged percentage ratio for the passive and global portfolios have had a reasonably high correlation over the past two years.

	Pacific Basin	European	Total
Active Managers	16.3%	3.9%	7.0%
Passive Manager	17.8%	3.1%	7.8%
Global Managers	21.8%	24.2%	23.9%

The passive portfolio had about $500 million of Japanese yen, for the Pacific Basin region, hedged back to U.S. dollars and $175 million of German marks and $75 million of French franc, for the European region, hedged back to U.S. dollars.

IV. Performance Measurement

There is no generally accepted performance measurement standard to judge either the securities lending or credit enhancement programs. The currency hedging program is measured against an unhedged performance benchmark. The following chart identifies the currency hedging gains and losses over the past four years by Japanese yen, German mark, and all other currencies (Swiss Franc, French Franc, and British Pound Sterling) by fiscal year (July 1st through June 30th).

Realized Gains and Losses
Amounts listed in millions of U.S. dollars

	Yen	Mark	Other	Totals
7/1/94 to 6/30/95	0	0	0	0
7/1/95 to 6/30/96	$145.8	$ 1.4	0	$147.2
7/1/96 to 6/30/97	$148.7	$39.0	$ 0.6	$188.3
7/1/97 to 6/30/98	$104.8	$26.7	0	$131.5
Totals	$398.3	$ 67.1	$ 0.6	$467.0

V. Key Issues

The key issue for the securities lending program is managing the appropriate level of risk and liquidity in the cash collateral reinvestment portfolio. Internal management allows more control and a better alignment of interest. External management allows access to a wider variety of markets and opportunities. Determining the appropriate balance between internal and external management is a critical aspect.

The key issue for the credit enhancement program is reduction of risk through increased project type diversification and maintenance of credit review standards. The existing commitments are predominantly associated with wrapping financial institutions' industrial development bonds. Pursuant to Investment Committee approval, expanded opportunities include participation with municipal insurers, enhancement of healthcare projects, and school bond enhancement.

The key issue for the currency hedging program is the policy for managing currency risk for the active and passive non-dollar equity portfolios. The currency policy was adopted in 1993 and revised in 1995 and 1997. Continual monitoring of changes in the non-dollar equity portfolio and the marketplace are required to control risk.

VI. Implementation Objectives

1. Implement the internal securities lending program as approved by the Investment Committee in June 1998.
2. Complete an Investment Committee presentation evaluating the relative success of the credit enhancement program as described to the Investment Committee in May 1994.
3. Monitor the changes in the non-dollar equity portfolio and marketplace to manage the currency risk in the passive non-dollar equity portfolio.

VII. Staffing Issue

Depending on the future direction of the credit enhancement program, there will be one additional staff related to the expansion of the number and complexity of credits. Prior to implementing any new program, a business plan would be submitted to and approved by the Investment Committee documenting resources required and benefits expected. No other staffing issues are anticipated.

Alternative Investments

I. Portfolio Function and Strategy

The primary function of alternative investments is to realize a long-term rate of investment return superior to that of conventional marketable investments. The strategy is to invest in limited partnerships including venture capital and special situations (buyouts, restructuring). Portfolio diversification is reviewed at the investment level rather than the partnership level.

II. Historical Overview

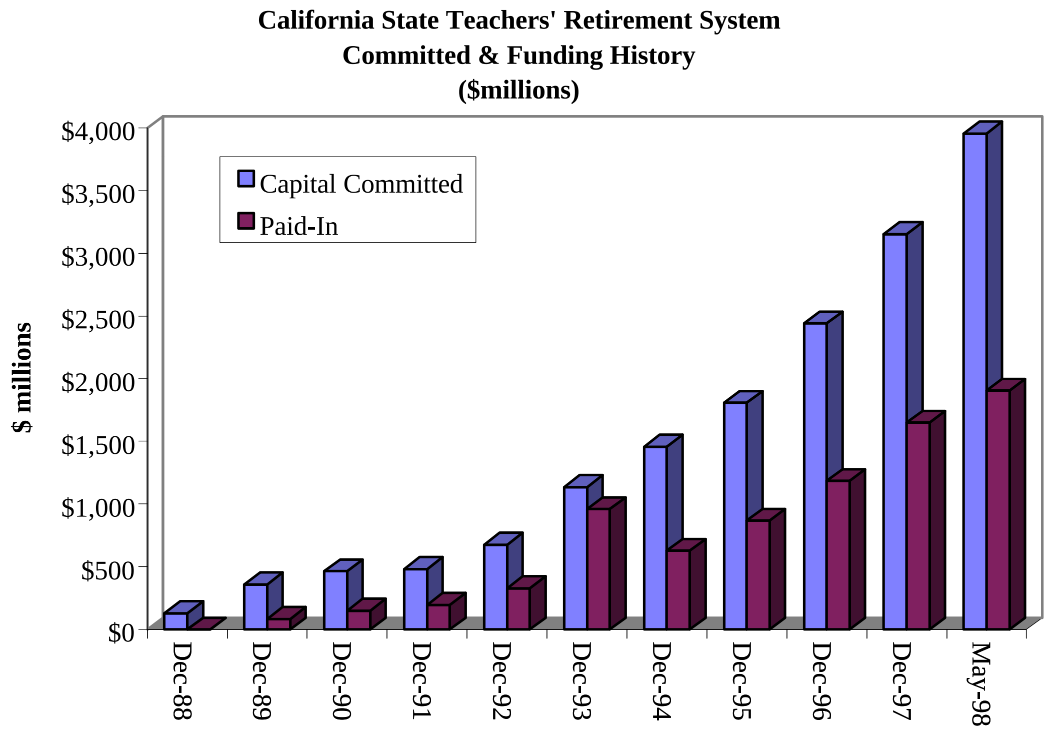
The decision to design an alternative investment program for STRS was made after receiving a positive recommendation from the general pension consultant after conducting a comprehensive asset allocation study. Approximately 5% of the System's assets are allocated to the alternative investment program.

The foundation for STRS' alternative investment program was laid with the development of the Policy and Procedures Manual in 1988. The manual prescribed a diversified program of investing in limited partnership interests in venture capital, leveraged buy-out, and special situation funds. The first alternative investment commitment was made in April 1988.

By June 30, 1992, STRS had commitments in 20 partnerships. At that time, STRS assumed a more pro-active role in developing a few select investment opportunities. STRS created two proprietary vehicles. InnoCal was approved in the first quarter of 1993, and Alpine Technology Ventures was approved in September 1994.

In 1993, the Investment Committee approved an international component for the alternative investment portfolio. The private equity markets in Europe and Asia were still relatively young, and the anticipated growth of the economies of these regions suggested a higher expected rate of return than for domestic partnerships. STRS made its first international commitment in the first quarter of 1994 to a UK fund.

As of May 31, 1998, STRS has committed approximately $4.0 billion to 69 partnerships and two co-investments. As shown below, approximately $1.9 billion, or 49% of commitments, have been funded.

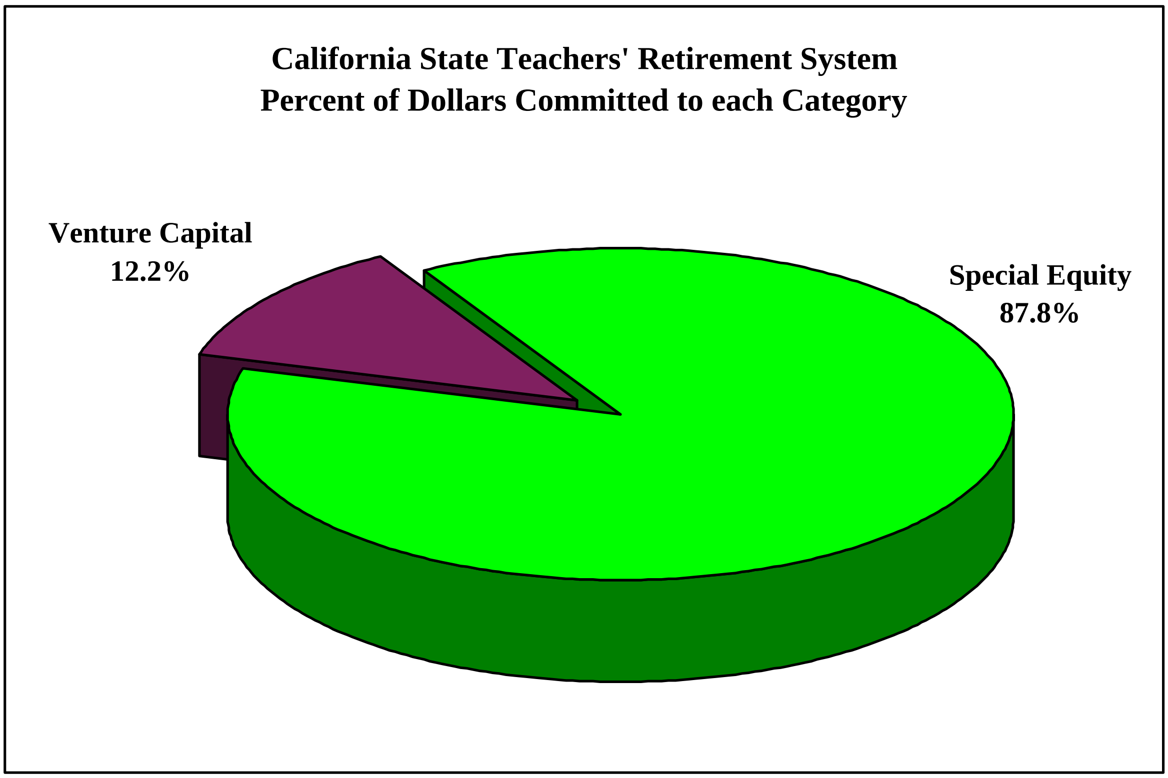


The growth in the amount committed to new partnerships has accelerated along with the size of the new funds. The growth in fund size is the result of a combination of the increased valuation of the domestic equity market and the type of funds considered. The growth in the amount funded reflects the accelerated pace of the investment environment plus the seasoning of the existing limited partnerships in STRS portfolio as they enter the prime investment cycle.

In June 1998, the alternative investment policies were revised to increase the delegation authority to staff. One of the important considerations was an anticipated increase in control over terms and conditions by reducing the time between identifying an investment opportunity and making the final decision.

III. Current Status

The May 31, 1998 estimated market value of the alternative investment portfolio was approximately $1.9 billion which represents 2.1% of the total investment portfolio. The chart below illustrates the alternative investment portfolio by dollars committed to each category.



Diversification in STRS' alternative investment portfolio has been achieved by three methods. First, there has been an effort to invest in a variety of funds with differing emphasis. Second, there is an effort to maintain a diversification on a geographical basis, and third, scaling into the alternative investment program over a ten year period has provided a vintage year diversification.

IV. Performance Measurement

There is no universally recognized benchmark for alternative investments. A recent survey of 60 large public and corporate pension funds showed the following: 30% used a relative benchmark to the S&P 500 (3% to 5% over the index), 25% used a relative benchmark to

Venture Economic's benchmark, 25% had no performance benchmark, and 20% used an absolute benchmark of approximately 15%. During a recent asset allocation review, Pension Consulting Alliance utilized a customized benchmark using the Consumer Price Index plus 12% as a performance measurement. The following table compares the return of the alternative investment portfolio compared to the customized index, of the Consumer Price Index plus 12%, over the past one, three, five, and ten year periods.

Alternative Investments versus CPI Index + 12%
For the period ended March 31, 1998

	One Year	Three Years	Five Years	Since Inception
Alternative Investments	30.52%	23.53%	19.37%	14.62%
CPI Index + 12%	14.32%	14.47%	14.66%	15.27%

V. Key Issues

The threshold issue is to implement the policy, procedure, and strategy recently adopted by the Investment Committee. The integration of the Director of Alternative Investments and Pathway Capital Management will determine the continued success of the program.

A second key issue is the coordination of internal and external databases. Pathway Capital has agreed to provide STRS with online access to its' internal database. The appropriate level of coordination must be reviewed to strike a balance between independence and efficiency on a going forward basis.

VI. Implementation Objectives

1. Evaluate the dual role of the alternative investment consultant/advisor. Present a recommendation to the Investment Committee on the appropriate structure.
2. Review and revise the policy for co-investments including performance objective, target, and range.

3. Review the performance benchmark considering relative and absolute measures including a method to incorporate the increasing amount of non-U.S. investments.
4. Develop and install the internal database to improve portfolio management, performance measurement, and management reporting.

VII. Staffing Issue

Depending on the future direction of the co-investment activity, there will be one additional staff related to the expansion of the number and complexity of the co-investments. Prior to implementing any new program, a business plan would be submitted to and approved by the Investment Committee documenting resources required and benefits expected. No other staffing issues are anticipated.

International Equity Investments

I. Portfolio Function and Strategy

The primary function of the international equity securities is to provide a high expected rate of return at a reasonable level of liquidity and to diversify the equity exposure into multiple markets. The strategy is to prudently invest by diversifying across the MCSI EAFE Index emphasizing a combination of active and passive management.

II. Historical Overview

Prior to 1966, the California State Teachers' Retirement System (STRS) was prohibited from owning equity securities. The first domestic equity security was purchased into the portfolio in March 1973. In 1983, Proposition 21 was implemented which eliminated the statutory limitations on the equity component of the investment portfolio. During 1985 an asset allocation review was completed by the general consultant which recommended an allocation to international equity securities of 15% of the investment portfolio.

Prior to the purchase of the first international equity security, the general consultant presented a series of educational items which highlighted the benefits and risks of investing outside the United States. Some of the points discussed included: (1) historical return, correlation and risk of domestic and international equity, (2) liquidity of the international markets, (3) capability of non-U.S. custodian banks, (4) types of controls for non-U.S. brokers, stock markets and investment managers, and (5) potential impact of currency movements.

The Investment Committee concluded that it was not only prudent, but desirable, to invest a portion of the portfolio into international equity securities because of the diversification, return and risk characteristics of the non-U.S. markets. The Investment Committee determined it would be prudent to proceed carefully because of the complexity of allocating, managing, and controlling non-U.S. investments. The first international equity security was purchased in 1992 (approximately six years after the initial allocation).

Subsequent asset allocation reviews have been completed about every two years, each with a unique combination of domestic and international equity and fixed income percentages. The desire for increased diversification has gradually increased the level of the allocation to international equity securities to the current allocation of 25%.

III. Current Status

The June 30, 1998 estimated market value of international equity portfolios is approximately $19 billion which represents 22% of the total investment portfolio. There are eight active and two passive external investment managers. The managers and amounts under management are listed below:

Name of Manager	Portfolio Market Value
Bank of Ireland	$ 750 million
Capital Guardian Trust	900 million
Chancellor LGT Asset Management	350 million
Lazard Freres Asset Management	750 million
Morgan Stanley Asset Management	700 million
Oechsle International Advisors	950 million
Schroder Capital Management	400 million
Scudder Stevens & Clark	700 million
Total Active Management	$ 5,500 million
Barclays Global Investors EAFE Fund	$12,400 million
State Street Global Advisors	1,100 million
Total International Equity	$19,000 million

IV. Performance Measurement

The performance benchmark for the total international equity portfolio is the MSCI EAFE Index. The portfolio has two regional managers, one compared to the MSCI European Index (Oechsle International Advisors) and one compared to the MSCI Pacific Basin Index (Schroder Capital Management). The portfolio has one emerging market manager compared to a custom Emerging Market Index (State Street Global Advisors). All other managers are measured to the MSCI EAFE Index. The following table compares the aggregate active and aggregate passive portfolios over the past one, two, three, and five year periods.

Active versus Passive – International For the period ended March 31, 1998				
	One Year	**Two Years**	**Three Years**	**Five Years**
Active	20.63	15.27	16.38	13.82
Passive	15.88	7.61	9.43	13.44
MSCI EAFE	18.61	9.7	10.57	11.93

The active managers have added value compared to the EAFE Index. The biggest factor has been the under-weight position in the Japanese market over the past two years. As an aggregate the active managers have about a one half weight position (compared to the EAFE Index) in Japan.

V. Key Issues

The threshold issue for the international equity portfolio was the determination of the target percent for asset allocation at 25% of the total investment portfolio.

A second key issue is evaluation of methods to augment the active international and passive emerging market managers in increasing exposure to the emerging equity market. The targeted percentage of emerging market exposure is 5.0% of the total investment portfolio while the actual market value of emerging market securities is about 1.5% of the total investment portfolio.

A third key issue is the evaluation of the future role of active management in the international equity portfolio. The target is as follows: 50% active management and 50% passive management. The composition of the active management component will include EAFE managers (70%) and European and Pacific Basin regional managers (30%).

VI. Implementation Objectives

1. Complete a request for proposal for active and passive non-U.S. equity mandates to implement the non-U.S. strategy approved by the Investment Committee in April 1998.
2. Complete an Investment Committee presentation on emerging market equity including the role of active management including peer group comparisons, academic research, and performance benchmark.

VII. Staffing Issue

There are no staffing issues anticipated.

Investment Operations

I. Strategy

The strategy is to prudently function as a service provider for STRS investment activity including the facilitation of timely purchase, sale, and accounting transactions for all domestic and international fixed income and equity securities.

II. Historical Overview

From STRS' inception through the early 1980's, all investment records were maintained by hand on ledger sheets which over time evolved into a hand posted ledger card system. The rapid growth of assets and quickly increasing variety of investment alternatives made the manual ledger system impossible to manage. The Treasurer of the State Of California was the sole custodian of STRS' assets until 1987 when, by legislative directive, STRS was permitted to contract for master custody services. At this time, State Street Bank was selected to handled the accounting, record keeping, and custody responsibilities.

With the advances in automation, increasing volume of transactions, and increasing complexity of assets under management, STRS configured a control process focusing on the separation of duties, dual control, and automated processing. To address the myriad of risks created by more complex investments, a series of policies and procedures were developed to mitigate potential hazards. STRS utilized Pension Consulting Alliance, other external experts, and investment staff to jointly develop methods of operation which were both efficient and cost effective. The control process is a combination of developing policies and procedures combined with monitoring compliance by internal and external audits and reviews.

The cornerstone of the control process was the creation of the investment operations group which is responsible for the coordination of activities between investment managers, State Treasurer's Office, State Controller's Office, STRS' Accounting Division, general consultant, master custodian, and STRS' Investment Branch. The diverse nature of the investment assets cause risk. The investment operations group provides assurance that adequate safeguards are in place to handle the array of securities contained in the investment portfolio.

III. Current Status

On June 30, 1998, STRS will hold approximately $86 billion of public and private equity and fixed income securities. These investments span 44 countries ranging from Australia to Canada and from South Africa to Finland. The investment operations group manages the "back office" activity for all security transactions including the coordination of internal and external managers.

IV. Performance Measurement

There is not a generally accepted performance measurement standard to judge the investment operations group. However, success could be measured by (1) timely settlement of all transactions, (2) ability to facilitate accurate money wire transfers, (3) ability to supply the internal and external auditors appropriate information, (4) accurate information supplied to the Investment Committee, and (5) ability to supply accurate information to the internal and external investment managers.

V. Key Issues

The key issue for the investment operations is a shift in the percent invested in equity securities, particularly private equity, internal equity, and international equity. The amount of activity associated with equity securities is substantially greater than fixed income and liquidity investments. With regard to private equity and international equity, it is more difficult to obtain information needed to complete the necessary control functions.

A second key issue is the security of investment information contained in STRS' computers. External products are added to assist in the management of the investment portfolios. Each connection contains an element of contamination and a potential risk. Building the appropriate safeguards is of primary importance.

A third key issue is the internal management of investment programs. Internal management requires more of the investment operation's resources because extra duties such as affirmation of trades and updating the internal portfolio systems are completed by investment operations. Additional external systems used by the portfolio managers, such as Bloomberg, PORTIA, Bridge, etc., must be integrated and maintained by staff.

A fourth key issue is the potential impact of the Year 2000 problems. The extent of impact associated with the change in millennium is unknown at this time. All of the investigation will be completed in coordination with the system wide project called the Y2K project.

VI. Implementation Objectives

1. Present a recommendation to the Investment Committee regarding foreign exchange transactions and cash balances for non-U.S. equity managers.
2. Participate in the planning and implementation process as approved for the domestic equity, international equity, and securities lending programs to minimize the disruptions to existing functions, products, and programs.
3. Study the impact to information systems used by the investment branch for potential Year 2000 problems coordinating with the overall Y2K project.

VII. Staffing Issue

Additional staffing would be required if additional programs were managed internally and if there is a substantial change in operations required to maintain computer safety. No other staffing issues are anticipated.

Investment Administration

I. Strategy

Successful funds are managed prudently exploiting the depth and breadth of the human resources available. Positive inter-personal relationships within STRS and the investment community are an important key for the fund to be successful.

II. Historical Overview

There are segments of the investment office which are outside the traditional boundaries associated with the purchase and sale of securities. Over time, these segments have contributed to the success of the organization. Some investment professionals cannot be assigned with one of the previously discussed segments. These individuals are included under the heading of investment administration.

III. Current Status

The investment world is rapidly changing pace. Information and technology have expanded into all facets of the global economy. As changes become more frequent and more intense, staff must comprehend the ramifications of what is transpiring politically and financially.

There are four qualitative principles which provide direction within this changing investment environment which are listed below:

1. Insistence on excellent long-term performance
2. Implementation of the strategic asset allocation plan
3. Knowledge of the difference between risk and risky
4. Provide accurate, timely, and thorough reporting

Investing is an evolutionary process, the Investment Management Plan and other STRS' documents allow staff to be better positioned in responding to industry and governmental changes. The importance of effective communication with corporate management increases with the size of STRS' investment in those companies.

IV. Performance Measurement

There is no generally accepted performance measurement standard to judge the investment administration segment. However, success could be measured by: (1) ability to attract and retain qualified personnel, (2) ability to achieve performance objectives established in the Investment Management Plan, and (3) ability to communicate with corporate management to affect performance in a positive manner.

V. Key Issues

The key issue for investment administration is coordinating the internal and external resources to facilitate the achievement of the general and financial goals and objectives. The rapid pace of change in investments requires continued due diligence. STRS' primary document is the Investment Management Plan which provides the strategic framework necessary to maintain a financially sound retirement system.

A second key issue is review and revision of other planning documents designed to assist in the implementation of the Investment Management Plan. Proactive investing requires many forward looking documents to guide the implementation of STRS' game plan.

A third key issue is to manage the changing investment horizon referred to as "global investing". As the importance of global investing continues to increase, it is more difficult to distinguish the line between domestic and international issues. STRS should determine the appropriate proxy and corporate governance strategy for domestic and international securities. Should STRS rely on external managers or should the process be managed internally?

VI. Implementation Objectives

1. Create and present a 1998 Investment Management Plan.
2. Revise the Statement of Investment Responsibility and Financial Responsibility guidelines for corporate investments.
3. Evaluate the viability of internal management of international proxy voting and global corporate actions.

VII. Staffing Issue

There are no staffing issues anticipated.

Attachment 2
Investment Committee - Item 8
July 8, 1998

The objectives for the 1998/99 fiscal year have been divided into categories identified below.		
GENERAL	**PROPOSED**	**COMPLETED**
Business plans -- The alternative investment and real estate staff were directed to complete an annual "business plan". Should a business plan for each operating unit be completed and presented?	JUN 99	
Policies -- Decisions made regarding Board governance, require policies be reviewed and revised (if necessary) to insure completeness and consistency for alternative investments, corporate governance, credit enhancement, currency hedging, external equity, fixed income, internal equity, liquidity, real estate, securities lending, and soft dollars.	JUN 99	
Request for proposal -- The contract for general consultant is scheduled to expire April 30, 1999. A request for proposal (RFP) process for the consultant should be completed unless an extension to the existing contract is contemplated.	OCT 98	
Request for proposal -- The contract for master custodian is scheduled to expire March 30, 2000. A request for proposal (RFP) process for the custodian should be completed unless an extension to the existing contract is contemplated.	APR 99	
Risk management -- Evaluate the need for educational seminars regarding the identification and control of traditional and non-traditional risk measurements.	JUN 99	
ALTERNATIVE INVESTMENTS	**PROPOSED**	**COMPLETED**
Review and revise the policy for co-investments including performance objective, target, and range.	MAR 99	
Review the performance benchmark considering relative and absolute measures including a method to incorporate the increasing amount of non-U.S. investments. Present a recommendation to the Investment Committee on the appropriate benchmark(s) to used to evaluate the Alternative Investment Program.	FEB 99	
Evaluate the dual role of the Alternative Investment consultant/advisor. Present a recommendation to the Investment Committee on the appropriate structure.	SEP 98	
Develop and justify the internal database selected to improve portfolio management, performance measurement, and management reporting.	OCT 98	

CORPORATE GOVERNANCE	PROPOSED	COMPLETED
Review, revise, and present the Statement of Investment Responsibility and the Financial Responsibility guidelines for corporate investments as directed by the Investment Committee in November 1997.	SEP 98	
Evaluate the viability of internal management of international proxy voting and global corporate actions.	FEB 99	
CREDIT ENHANCEMENT	**PROPOSED**	**COMPLETED**
Complete an Investment Committee presentation evaluating the relative success of the credit enhancement program as described to the Investment Committee in May 1994. Review and revise the business plan as necessary.	APR 99	
EXTERNAL EQUITY	**PROPOSED**	**COMPLETED**
Complete a request for proposal for active and passive non-U.S. equity mandates to implement the non-U.S. equity strategy approved by the Investment Committee in May 1998	AUG 98	
Coordinate the funding, allocation, reallocation, and transition of the domestic equity portfolios controlling transaction costs while implementing the comprehensive plan approved by the Investment Committee in October 1997.	MAR 99	
Review and revise the policies and procedures for the soft dollar program including domestic equity, non-U.S. equity, and fixed income portfolios. The review will include an analysis of the soft dollar purchases by external equity managers.	JAN 99	
Complete an Investment Committee presentation on emerging market equity including the role of active management including peer group comparisons, academic research, and performance benchmark.	NOV 98	
FIXED INCOME	**PROPOSED**	**COMPLETED**
Review the characteristics of an effective performance benchmark and evaluate the validity of the benchmark currently being used within fixed income. Present findings and a recommendation to the Investment Committee.	MAR 99	
Implement the revitalization of the Member Home Loan Program including selection of vendors and coordination of legislative changes to increase loan volume to recommended levels.	JUN 99	

INTERNAL EQUITY	PROPOSED	COMPLETED
Evaluate the relative success of the internal equity management program including ancillary benefits described in the October 1997 Investment Committee presentation. Present a recommendation to the Investment Committee on the appropriate amount of funds to be managed internally in the S&P 500 Index portfolio.	MAY 99	
Present a recommendation to the Investment Committee regarding strategies for the equitization of cash for the domestic equity portfolio.	OCT 98	
INVESTMENT OPERATIONS	**PROPOSED**	**COMPLETED**
Present a recommendation to the Investment Committee regarding foreign exchange transactions and cash balances for non-U.S. equity managers.	SEP 98	
Participate in the planning and implementation process as approved for the domestic equity, international equity, and securities lending programs to minimize disruptions to existing functions, products, and programs.	JUN 99	
REAL ESTATE	**PROPOSED**	**COMPLETED**
Present a recommendation to the Investment Committee regarding the appropriateness of performance based or incentive fees paid to the real estate managers for acquisition, management, and disposition of properties.	SEP 98	
Complete a request for proposal for real estate mandates as approved by the Investment Committee to implement the overall real estate strategy.	AUG 98	
Review and revise the strategy for moderate to high risk investments including opportunity funds and lease-up investments including performance objective, target, and range.	FEB 99	
SECURITIES LENDING	**PROPOSED**	**COMPLETED**
Implement the internal securities lending program as approved by the Investment Committee in June 1998.	MAY 99	